Amendments to Claims

18. (Currently amended) A motion control system comprising a set of control nodes each for controlling motion along a single axis of the motion control system, each control node having a clock and each ~~independently~~ obtaining a set of information via a network that pertains to a control value to be applied to the corresponding axis and in response each control node applying the corresponding control value to the corresponding axis when a trigger time associated with the corresponding control value matches a time in the corresponding clock such that application of the control values to the axes is coordinated by ~~selecting~~ the trigger times and synchronizing the times in the clocks.

19. (Previously added) The motion control system of claim 18, wherein each set of information specifies the trigger time and the control value for the corresponding axis.

20. (Previously added) The motion control system of claim 18, wherein each set of information specifies a set of equations for determining the trigger time and control value for the corresponding axis.

21. (Previously added) The motion control system of claim 20, wherein each control node includes a set of processing resources for determining the trigger time and the control value in response to the corresponding set of equations.

22. (Previously added) The motion control system of claim 21, wherein the processing resources of each control node are scaled in response to the corresponding

equations.

23. (Currently amended) A motion control system comprising:

a set of control nodes each for controlling motion along a single axis of the motion control system, each control node having a clock and a set of tables each for holding a set of pre-computed control values and corresponding trigger times for a corresponding set of motion control functions of the corresponding axis;

selector node that transfers a set of information to each control node ~~independently~~ via the network that specifies one of the motion control functions to be performed in the corresponding axis such that each control node in response to the corresponding information obtains a control value for the specified motion control function from the corresponding tables and applies the control value to the corresponding axis when the corresponding trigger time matches a time in the corresponding clock such that the motion control functions of the axes are coordinated by ~~selecting~~ the trigger times in the tables and synchronizing the times in the clocks.

24. (Previously added) The motion control system of claim 23, wherein the pre-computed control values and trigger times are generated by the selector node and transferred to the control nodes via the network.

25. (Previously added) The motion control system of claim 23, wherein the pre-computed control values and trigger times are generated by a set of processing resources in each control node.

26. (Previously added) The motion control system of

claim 23, wherein each set of information identifies a subset of the corresponding tables and a starting time such that each control node obtains the control value and the trigger time from the identified tables and applies the control value in accordance with the corresponding specified starting time.

27. (Currently amended) A method for controlling a set of axes of a motion control system, comprising the steps of:

for each axis, ~~independently~~ obtaining a set of information via a network that pertains to a control value to be applied to the axis;

for each axis, applying the control value to the axis when a trigger time associated with the control value matches a time in a clock associated with the axis such that application of the control values to the axes is coordinated by ~~selecting~~ the trigger times and synchronizing the times in the clocks.

28. (Previously added) The method of claim 27, wherein one or more of the sets of information specifies the trigger time and the control value for the corresponding axis.

29. (Previously added) The method of claim 27, wherein one or more of the sets of information specifies a set of equations for determining the trigger time and control value for the corresponding axis.

30. (Previously added) The method of claim 29, further comprising the step of determining the trigger time and the control value in response to the corresponding set of equations.

31. (Previously added) The method of claim 30, further comprising the step of scaling a set of processing resource for the corresponding axis in response to the corresponding equations.

32. (Previously added) The method of claim 27, further comprising the step of generating a set of pre-computed control values and trigger times for each axis.

33. (Previously added) The method of claim 32, wherein each set of information specifies a subset of the pre-computed control values and trigger times and a starting time.

34. (Previously added) The method of claim 33, further comprising the steps of for each axis obtaining the control value and the trigger time from the specified subset and applying the control value in accordance with the corresponding specified starting time.

35. (New) A motion control system, comprising:

first control node for controlling a motion of a first axis of the motion control system, the first control node having a first synchronized clock and means for triggering the motion of the first axis when a trigger time associated with the first axis matches a time in the first synchronized clock;

second control node for controlling a motion of a second axis of the motion control system, the second control node having a second synchronized clock and means for triggering the motion of the second axis when a trigger time associated with the second axis matches a time in the second synchronized clock;

such that the motions of the first and second axes are started at substantially the same time by setting

each trigger time equal to a starting time.

36. (New) The motion control system of claim 35, wherein the starting time is sent to the first and second control nodes via a network.

37. (New) The motion control system of claim 36, wherein a set of control values associated with each motion is sent to the first and second control nodes via the network.